[Journal of Accountancy](https://egrove.olemiss.edu/jofa)

[Volume 54](https://egrove.olemiss.edu/jofa/vol54) | [Issue 2](https://egrove.olemiss.edu/jofa/vol54/iss2) Article 5

8-1932

Students' Department

H. P. Baumann

Students' Department

H. P. Baumann, *Editor*

AMERICAN INSTITUTE EXAMINATIONS

[Note.—The fact that these solutions appear in The Journal of Accountancy should not cause the reader to assume that they are the official solutions of the board of examiners. They represent merely the opinions of the editor of the *Students' Department.*]

Examination in Accounting Theory and Practice—Part I

May 12, 1932, 1:30 P. M. to 6:30 P. M.

The candidate must answer the first three questions and any two of the remaining four questions.

No. 3 (25 points):

You are retained to audit the accounts of the S Manufacturing Company for the year ended December 31, 1931. Prepare a balance-sheet, in proper form, as at the close of that year, for submission to your client.

You are furnished with the trial balance from the company's books, as of December 31st, as follows:

	Dr.	Cr.
Cash in bank	$ 111,869.50	
Customers' notes	17,625.75	
Customers' accounts	228,429.20	
Reserve for bad debts		$ 21,610.25
Inventories	496,267.50	
Due from Canadian branch	30,000.00	
Unexpired insurance	11,350.10	
Common stock held in treasury (1,400 shares)	118,200.00	
Land	28,000.00	
Buildings	225,000.00	
Machinery and equipment	150,400.00	
Furniture and fixtures	22,600.00	
Reserve for depreciation		46,225.50
Patents	34,000.00	
Bond discount and expense	24,000.00	
Bank loan		20,000.00
Accounts payable		37,150.00
Accrued wages		1,100.00
Accrued local taxes		4,000.00
First-mortgage, 6 per cent. bonds		450,000.00
Preferred, 6 per cent. stock ($100 par)		250,000.00
Common stock ($100 par)		400,000.00
Surplus		279,893.80
Profit and loss		2,762.50
Dividends on preferred stock	15,000.00	
	$1,512,742.05	$1,512,742.05

In the course of the audit, you obtain the following information:

(1) The first-mortgage, 6 per cent. bonds were issued February 1, 1929, and mature February 1, 1939. Interest is payable February 1st and August 1st, and has been entered on the books as paid. There has been no change in the bond-discount-and-expense account since the issuance of the bonds.

(2) The land and buildings are carried at appraised values, which are $48,500 more than cost. The adjustment to appraised values was credited to surplus in 1929.

(3) Included in customers' accounts is an account with the president of the company showing that he owes $24,750 for advances, less salary and

other credits, and that he has consistently owed from $20,000 to $25,000 throughout the year.

(4) Beginning February 15, 1932, and annually thereafter, the company is obligated to deposit $25,000 in a sinking fund for retirement of the bonds.

(5) The regular quarterly dividend on the preferred stock was declared December 15, 1931, payable January 2, 1932.

(6) The company has discounted customers' notes aggregating $64,000.

(7) The Canadian branch was opened during the year. A trial balance from the books of the branch, at December 31, 1931, was as follows:

Cash	$10,000	
Accounts receivable	18,000	
Inventory	12,000	
Accounts payable		$10,000
Due to home office		30,000
	$40,000	$40,000

The rate of Canadian exchange, at the date of the balance-sheet, was 85.

(8) The patent account represents the cost of rights to manufacture a certain device. The rights were acquired in June, 1930, to run for seventeen years.

Solution:

Explanatory Adjusting Entries

(1)

Surplus	$11,250	
Accrued bond interest		$11,250

To record the accrued bond interest on the $450,000 6% bonds for the period August 1, 1931, to December 31, 1931, (5 months).

The accrued interest unpaid at December 31, 1931, is charged directly to surplus account rather than to profit-and-loss account, inasmuch as the operations for the year ended on December 31, 1931, have been charged with a full year's provision for interest on these bonds as the interest was paid.

(1a)

Surplus	$ 4,600	
Profit and loss	2,400	
Bond discount and expense		$ 7,000

To amortize the bond discount and expense over the life of the bonds (10 years) at the rate of $200 a month. That portion applicable to the period February 1, 1929, to December 31, 1930, is charged to surplus, and that portion applicable to the year ended December 31, 1931, is charged to profit and loss.

(2)

Surplus	48,500	
Unrealized surplus arising through appraisal of land and buildings		48,500

To express the unrealized appreciation on land and buildings credited to surplus account in 1929.

If the depreciation since the appraised values were spread on the books was based upon the appraised value of the building, the amount of the depreciation on the appreciation charged against operations should be credited to the earned surplus account and charged against the unrealized surplus account. Because the necessary data are not given in the problem, no adjustment can be made against the unrealized surplus account set up in entry number two.

(3)

Due from officer	$24,750	
Customers' accounts		$24,750
To set out under separate caption, the amount due from the president of the company.		

(4)

The obligation to deposit $25,000 on February 1, 1932, in a sinking fund for the retirement of the bonds is disclosed by means of a note on the balance-sheet.

(5)

Surplus	$ 3,750	
Dividends payable on preferred stock		$ 3,750
To record the dividend of 1½% on the 2,500 shares of preferred stock outstanding ($100 par) declared on December 15, 1931, payable January 2, 1932.		
(As the dividends account already contains a full year's dividend, the charge is made to opening surplus.)		

(6)

Customers' notes	64,000	
Customers' notes discounted		64,000
To record the customers' notes discounted as at December 31, 1931.		

The contingent liability on customers' notes discounted may be shown, as an alternative, by means of a footnote appended to the balance-sheet.

(7)

Cash	$ 8,500	
Customers' accounts	15,300	
Inventory	10,200	
Surplus	4,500	
Accounts payable		$ 8,500
Due from Canadian branch		30,000
To take up in the balance-sheet the assets and liabilities of the Canadian branch at the exchange rate of 85 at December 31, 1931, as shown below:		

	Amounts	
Assets	Per books	Converted
Cash	$10,000	$ 8,500
Customers' accounts	18,000	15,300
Inventory	12,000	10,200
Total assets	$40,000	$34,000

Less accounts payable	$10,000	$ 8,500
Net assets	$30,000	$25,500
Loss on exchange		4,500
		$30,000

(8)

Surplus	$1,000	
Profit and loss	2,000	
Patents		$3,000
To amortize the patents for the six months period, of 1930 (charged to surplus) and for the year 1931 (charged to profit and loss) on the basis of $2,000 a year.		

Because of lack of information, no adjustment can be made to allocate the patent cost between the cost of goods manufactured and sold and the inventories of work in process and finished goods on hand at December 31, 1931. Therefore, the charge is made to profit-and-loss account for the year 1931, and to surplus account for the previous year.

(9)

Surplus	$15,000	
Dividends on preferred stock		$15,000
To charge surplus account with dividends paid during the year.		

(10)

Common stock held in treasury	21,800	
Discount on treasury stock purchased		21,800
To raise treasury stock to par and to credit the difference to a special surplus account.		

S Manufacturing Company and Canadian Branch

Balance-sheet—December 31, 1931

Assets

Current assets:			
Cash		$120,369.50	
Customers' notes	$ 81,625.75		
Less notes discounted	64,000.00	17,625.75	
Customers' accounts	$218,979.20		
Less reserve for bad debts	21,610.25	197,368.95	
Inventories		506,467.50	
Total current assets			$ 841,831.70
Due from officer			24,750.00
Unexpired insurance			11,350.10

Fixed assets (at cost, except for land and building, which are carried at a value of $48,500 in excess of cost, as appraised in 1929 by ———)			
Land		$ 28,000.00	
Building	$225,000.00		
Machinery and equipment	150,400.00		
Furniture and fixtures	22,600.00		
Total	$398,000.00		
Less reserve for depreciation	46,225.50	351,774.50	$ 379,774.50
Patents			31,000.00
Bond discount and expense			17,000.00
			$1,305,706.30

Liabilities and net worth

Current liabilities:			
Bank loan		$ 20,000.00	
Accounts payable		45,650.00	
Dividends payable		3,750.00	
Accrued bond interest		11,250.00	
Accrued wages		1,100.00	
Accrued local taxes		4,000.00	
Total current liabilities			$ 85,750.00
First mortgage, 6% bonds of 1939			450,000.00
(Beginning February 15, 1932, annual deposits of $25,000 are required to be made in a sinking fund for bond retirement.)			
Net worth:			
Capital stock:			
6% preferred stock ($100 par), issued and outstanding, 2,500 shares	$250,000.00		
Common stock ($100 par), issued 4,000 shares, in treasury 1,400 shares, outstanding 2,600 shares	260,000.00	$510,000.00	
Surplus:			
Earned surplus (exhibit B)	$189,656.30		
Discount on treasury stock purchased	21,800.00		
Unrealized surplus arising from appraisal	48,500.00	259,956.30	
Total net worth			769,956.30
			$1,305,706.30

S Manufacturing Company

Working papers—December 31, 1931

	Trial balance December 31, 1931			Adjustments			Adjusted balance-sheet	
	Debit	Credit		Debit		Credit	Debit	Credit
Cash in bank	$ 111,869.50		(7)	$ 8,500.00			$120,369.50	
Customers' notes	17,625.75		(6)	64,000.00			81,625.75	
Customers' accounts	228,429.20		(7)	15,300.00	(3)	$ 24,750.00	218,979.20	
Reserve for bad debts		$ 21,610.25						$ 21,610.25
Inventories	496,267.50		(7)	10,200.00			506,467.50	
Due from Canadian branch	30,000.00				(7)	30,000.00		
Unexpired insurance	11,350.10						11,350.10	
Common stock held in treasury (1,400 shares)	118,200.00		(10)	21,800.00			140,000.00	
Land	28,000.00						28,000.00	
Buildings	225,000.00						225,000.00	
Machinery and equipment	150,400.00						150,400.00	
Furniture and fixtures	22,600.00						22,600.00	
Reserve for depreciation		46,225.50						46,225.50
Patents	34,000.00				(8)	3,000.00	31,000.00	
Bond discount and expense	24,000.00				(1a)	7,000.00	17,000.00	
Bank loan		20,000.00						20,000.00
Accounts payable		37,150.00			(7)	8,500.00		45,650.00
Accrued wages		1,100.00						1,100.00
Accrued local taxes		4,000.00						4,000.00
First-mortgage, 6% bonds		450,000.00						450,000.00
Preferred, 6% stock ($100 par)		250,000.00						250,000.00
Common stock ($100 par)		400,000.00						400,000.00
Surplus		279,893.80	(1)	11,250.00				
					(1a)	4,600.00		
					(2)	48,500.00		
					(5)	3,750.00		
					(7)	4,500.00		
					(8)	1,000.00		
					(9)	15,000.00		191,293.80
Profit and loss		2,762.50	(1a)	2,400.00				
			(8)	2,000.00			1,637.50	
Dividends on preferred stock	15,000.00				(9)	15,000.00		
Accrued bond interest	$1,512,742.05	$1,512,742.05			(1)	11,250.00		11,250.00
Unrealized surplus arising through appraisal of land and buildings					(2)	48,500.00		48,500.00
Due from officer			(3)	24,750.00			24,750.00	
Dividends payable					(5)	3,750.00		3,750.00
Customers' notes discounted					(6)	64,000.00		64,000.00
Discount on treasury stock purchased					(10)	21,800.00		21,800.00
				$237,550.00		$237,550.00	$1,579,179.55	$1,579,179.55

S Manufacturing Company

Statement of surplus for the year ended December 31, 1931

Surplus per books, January 1, 1931			$279,893.80
Adjustments to correct opening surplus:			
Bond interest accrued		$11,250.00	
Bond discount and expense		4,600.00	
Unrealized appraisal surplus		48,500.00	
Preferred dividend not set up		3,750.00	
Patent expiration		1,000.00	69,100.00
Surplus as adjusted, January 1, 1931			$210,793.80
Deduct:			
Preferred dividends paid in 1931		$15,000.00	
Net loss for the year	$1,637.50		
Loss on exchange fluctuation	4,500.00	6,137.50	21,137.50
Surplus, December 31, 1931			$189,656.30

The solution of problem No. 4 in this examination will be published in The Journal of Accountancy for September, 1932.

No. 5 (14 points):

On December 31, 1929, Corporation Y, a holding company, owned 80 per cent. of the no-par-value common capital stock and 90 per cent. of the non-voting cumulative 7 per cent. preferred capital stock of Company A. Dividends on preferred stock had been paid to December 31, 1929.

The position of the capital account of Company A, and the holdings of Corporation Y, remained unchanged to December 31, 1931, no dividends having been paid during the years 1930 and 1931.

At December 31, 1929, Company A's books showed the following:

Capital stock, preferred—7 per cent. cumulative—issued and outstanding, 5,000 shares, $100 each	$500,000
Capital stock, common—no par value—issued and outstanding, 10,000 shares	50,000
Earned surplus—balance	9,091

Company A's operations for the year 1930 resulted in a net loss of $75,000, but during the year 1931 its net earnings were $140,000.

State the minority interests in Company A as they would appear in a consolidation of the accounts of Corporation Y and Company A at December 31, 1930, and also at December 31, 1931.

Solution:

The solution of this problem hinges on the relative interests of the two classes of stock in the surplus (or deficit), and the relative interests depend upon the rights of the preferred stock.

The preferred stock is known to have a par value of $100 a share, to be entitled to 7 per cent. cumulative dividends, and to be non-voting. The last feature is of no importance in the solution of this problem. The fact that the preferred stock is preferred as to the 7 per cent. dividend, and has a right to unpaid dividends of any years before any dividends may be paid on the common stock, does not of itself give the preferred stock a preference of assets in the event of liquidation, nor the right to further participation in the profits.

Since authorities are not in agreement as to the inherent and the implied rights of preferred stock (reference should be made to the statute or to the charter), this solution is based upon the assumption that the preferred stock is preferred as to the assets, and is non-participating. This assumption must be made, as the problem does not indicate the amount the common stockholders are to receive in liquidation, nor the amount of dividends they are to receive before any participation feature becomes operative.

COMPUTATION OF MINORITY INTERESTS IN COMPANY A

		Preferred stock	Common stock
December 31, 1930:			
Capital stock		$500,000.00	$50,000.00
Surplus:			
Balance, January 1, 1930	$ 9,091.00		
Loss of 1930	*75,000.00*		
Deficit, December 31st	$ *65,909.00*		
Applied against the common stock until the stock is wiped out	50,000.00		*50,000.00*
Remainder—applied against the preferred	$ *15,909.00*	*15,909.00*	
Book value of stock		$484,091.00	$
Percentage of minority interest		10%	20%
Amount of minority interest		$ 48,409.10	$

Note.—The unpaid cumulative dividends at December 31, 1930, need not be considered, as no surplus existed at that date.

		Preferred stock	Common stock
December 31, 1931:			
Capital stock		$500,000.00	$50,000.00
Surplus:			
Balance, December 31, 1930	$ *65,909.00*		
Profit of 1931	140,000.00		
Surplus, December 31st	$ 74,091.00		
Reserved for unpaid cumulative preferred dividends—14% of $500,000	70,000.00	70,000.00	
Remainder—to common	$ 4,091.00		4,091.00
Book value of stock		$570,000.00	$54,091.00
Percentage of minority interest		10%	20%
Amount of minority interest		$ 57,000.00	$10,818.20

The minority interest should appear on the liability side of the consolidated balance-sheet, as follows:

	Preferred stock	Common stock
At December 31, 1930—		
Minority interests in Company A:		
Preferred stock—10%	$ 48,409.10	
Common stock—20%		$48,409.10
At December 31, 1931—		
Minority interests in Company A:		
Preferred stock—10%	$ 57,000.00	
Common stock—20%	10,818.20	$67,818.20

No. 6 (14 points):

Company A has 500,000 shares of capital stock issued and outstanding, owns 350,000 shares of capital stock of Company B and has a surplus of $1,050.

Company B has 400,000 shares of capital stock issued and outstanding, owns 45,000 shares of capital stock of Company A and has a deficit of $2,100.

A consolidated balance-sheet of companies A and B is being prepared. Determine the amount of the deficit of Company B applicable to the minority stockholders' interest in that company.

Solution:

In this problem, we find that Company A owns 87½ per cent. (350,000 shares of a total of 400,000 shares outstanding), of Company B, and that Company B, in turn, owns 9 per cent. (45,000 shares of a total of 500,000 shares outstanding), of Company A. It is, therefore, necessary to determine the book values of the surplus accounts in order to ascertain the amount of the deficit of Company B applicable to the minority stockholders' interest in that company.

Let A = the surplus account of Company A, and
B = the surplus account of Company B.

(1) Then A = $1,050.00 + .87½B, and
(2) B = $2,100.00 + .09A

Substituting (1) for A in the equation (2), we find,
B = —$2,100.00 + .09($1,050.00 + .87½B), or
B = —$2,100.00 + $94.50 + .07875B, or
.92125B = —$2,005.50, or
B = —$2,176.93, the amount of the deficit of Company B.

The minority interest of 12½ per cent. (50,000 shares of the total of 400,000 shares outstanding) of the deficit of Company B, will be, therefore, 12½ per cent. of $2,176.93, or $272.12.

This amount may be proved, by continuing the solution to learn the value of A, as follows:

Substituting the value of B in the equation (1), we find,
A = $1,050.00 + .87½(—$2,176.93), or
A = $1,050.00 — $1,904.81, or
A = —$854.81

The consolidated deficit of $1,050 (the deficit of Company B amounting to $2,100 less the surplus of Company A amounting to $1,050), will be apportioned in the consolidated balance-sheet as follows:

Minority interest: 12½% of $2,176.93 =	$ 272.12
Holding company's interest: 91% of $854.81 =	777.88
Total deficit	$1,050.00

No. 7 (14 points):

The Products Company, Ltd., Canada, keeps its records on a nominal dollar basis, and presents the following balance-sheet as at December 31, 1930:

Assets		
Cash		$ 10,000
Accounts receivable		300,000
Inventories		250,000
Fixed assets (U. S. dollar cost at date of acquisition)		100,000
		$660,000
Liabilities		
Notes payable		$ 15,000
Accounts payable		150,000
Due to parent company (U. S. dollars)		200,000
Capital		150,000
Surplus:		
Beginning of year	$ 25,000	
Profit for year	120,000	145,000
		$660,000

You are requested to convert this statement to a United States currency basis for consolidation with the parent company's balance-sheet. Assume that the Canadian dollar is worth $.80 in United States funds. Explain your treatment of each item.

The following information is available:

Accounts receivable—all Canadian funds
Notes payable—all Canadian funds
Accounts payable—$30,000 payable in Canadian funds and $120,000 in United States funds
Inventories—

Raw material purchased in Canadian funds	$ 20,000
" " " in United States funds	100,000
Goods in process	130,000

This item includes material purchased both in United States and Canada, with labor all performed in Canada. The total purchases for the year average, approximately, 85 per cent. from United States and 15 per cent. Canadian. The labor cost approximates 13 per cent. of the cost of materials.

Assume no inter-company profit on materials purchased from the parent company.

Solution:

THE PRODUCTS COMPANY, LTD.

Statement showing the conversion to a United States currency basis December 31, 1930:

Assets	Nominal dollar basis	Rate of conversion	United States currency basis
Cash	$ 10,000.00	$ .80	$ 8,000.00
Accounts receivable	300,000.00	.80	240,000.00

Inventories:			
Raw material purchased in Canadian funds	$ 20,000.00	$ .80	$ 16,000.00
Raw material purchased in United States funds	100,000.00	1.00	100,000.00
Goods in process	130,000.00	note (1)	123,557.52
Fixed assets	100,000.00	1.00	100,000.00
Total	$660,000.00		$587,557.52
Liabilities and net worth			
Notes payable	$ 15,000.00	$ .80	$ 12,000.00
Accounts payable:			
Payable in Canadian funds	30,000.00	.80	24,000.00
Payable in United States funds	120,000.00	1.00	120,000.00
Due to parent company	200,000.00	1.00	200,000.00
Capital	150,000.00	note (2)	150,000.00
Surplus—beginning of the year	25,000.00	note (2)	25,000.00
Profit for year	120,000.00	note (2)	56,557.52
Total	$660,000.00		$587,557.52

Note (1):

Goods in process inventory	$130,000.00		
The labor cost included in the goods in process inventory approximates 13% of the cost of materials. The labor cost is, therefore, 13/113 of $130,000 or	14,955.75	$ .80	$ 11,964.60
The balance represents the material cost of	$115,044.25		
Of this amount, approximately 85% was purchased in the United States	97,787.61	1.00	97,787.61
and the remainder in Canada	$ 17,256.64	.80	13,805.31
The total value in United States funds is			$123,557.52

Note (2):

The capital-stock account is converted at the dollar price paid by the parent company, and the surplus account at the beginning of the year is carried over at the balance determined at January 1, 1930. Any adjustment necessary to bring the subsidiary balance-sheet into balance after conversion into United States funds is arbitrarily stated in the account "profit for the year."

The practice of converting the current assets and the current liabilities at the rate of exchange current on the balance-sheet date ($.80) has been followed in the above solution.